Nature. London. v. 117. 1926.

Climate changes in western America. p. 238-239. (Feb. 13.) [Reviews papers by Antevs and Huntington on tree o. 238-239. (Feb. rings and climate.

Hobbs, William Herbert. Greenland or polar front. p. 232-233. (Feb. 13.)

Stewart, C. D. Weather prediction from observation of cloudlets. p. 270. (Feb. 20.)

Nature. Paris, 54 année. 1926.

Mercanton, P.-L. Encore le "rayon vert." suppl. p. 49. (13 février.)

Mascart, Jean. Témoignage de la faune dans les modifications du climat. p. 142-143. (27 février.)

Nature magazine. Washington, D. C. v. 7. March, 1926. Christman, W. W. Volcanoes of foam. p. 144. [Describes conical formations of frozen foam over breaks in ice covering a stream.]

Schoonhoven, John J. Red snow. p. 148.

Naturwissenschaften. Berlin. 14. Jahrgang. 8. Januar 1926. Schubert. Verdunstung und Dampfmangel im Flach- und Berglande, in Nadel- und Buchenwäldern. p. 32. [Abstract.]

Observatoire géophysique central. Recueil de géophysique. Lenin-

grad. t. 4. fascicule 3. 1925.

Berg, E. Exzessive Regengüsse verschiedener Dauer im Euro-

päischen Russland im Jahrzehnt 1903–1912. p. 9–27.
Kalitine, N. N. La transparence de l'atmosphère d'après les observations faites à Sloutzk (Pavlovsk). p. 49–86.
Savinov, S. J. The anomaly of temperature of 1924–25 according to the observations effected at the Magnetic meteo-

cording to the observations elected at the Magnetic meteorological observatory in Slouzk (Pavlovsk). p. 99-110.

Schoenrok, A. Zahl der Frosttage und der Wintertage im Europäischen Russland. p. 28-48.

Shostakovitch, W. B. The snow cover in eastern Siberia. p.

111-123

Wiese, W. Über die langfristige Vorhersage der Menge des Niederschlages in den zentralen und östlichen Teilen Russlands im April und Mai. p. 87-98.

Philosphical magazine. London. v. 1. February 1926.
Brunt, D. Energy in the earth's atmosphere. p. 523-532.

Nolan, P. J. The character of the ionization produced by spraying water. p. 417-428.

Physical review. Minneapolis. v. 27. February, 1926.

Taylor, A. Holt, & Hurlburt, E. O. The propagation of radio waves over the earth. p. 189-215.

Physico-mathematical society of Japan. Proceedings. Tôkyô. v. 8.

January 1926.

Nukiyama, Daizo, & Nakata, Kin'iti. Atmospheric potential

in lower stratum of atmosphere. p. 5-14.

Physikalische Zeitschrift. Leipzig. 27. Jahrgang, no. 2. 1926.

Kolhörster, Werner. Apparat zur Messung der durchdringenden Strahlung. p. 62-63.

Pontificia accademia delle scienze nuovi Lincei. Atti. Roma. Anno 1924.

Martinelli, G. Due eccezionali depressioni barometriche sull'

Italia. p. 82-85. (Sess II. 20 gennaio.)

Palazzo, Luigi. Marco Dechevrens. p. 157-158. (Sess. VI-VII. 18 maggio-15 giugno.) [Obituary.]

Popular astronomy. Northfield, Minn. v. 34. March, 1926.

Petersen, Max. The shadow bands. p. 217-218.

Prussia. Meteorologisches Institut. Abhandlungen. Berlin. Band 8, Nr. 1. 1925.

Gessler, R. Die Stärke der unmittelbaren Sonnenbestrahlung der Erde in ihrer Abhängigkeit von der Auslage. Revue générale des sciences. Paris. 37 an. 21. janvier 1926.

Mascart, Jean. Les chotts algériens et le climat africain. p.

Royal astronomical society of London. Monthly notices. v. 86. January 1926

Turner, H. H. On a period of approximately 9.2 years in the Greenwich observations of magnetic declination and horizontal force. p. 108-118. Turner, H. H. On an unsuccessful search for the 9.2-year

magnetic period in sunspot records, with a new analysis of those records back to 1610. p. 119-130. e. New York. v. 63. March 12, 1926.

Hobbs, William Herbert. Arctic explorations and the origin of storms. suppl. p. x.

Scientific monthly. New York. v. 22. March, 1926.
Aldrich, L. B. Studying the sun in Chile. p. 258-261.
Fairchild, Herman L. Changing levels of the Great Lakes. p.

193-199.

Humphreys, W. J. Winter's music. p. 215-217. Sociedade de geografia. Boletim. Lisboa. 40<sup>a</sup> serie. Julho-setembro de 1922.

Lima, Almeida. O problema de locomoção aérea e o serviço

aerológico em Portugal. p. 320-322. Washington academy of sciences. Journal. Baltimore, Md. v. 16. 1926.

Austin, L. W. The present status of radio atmospheric dis-

turbance. p. 41-46. (Jan. 19.)

Fergusson, S. P. Meteorology of the total solar eclipse of January 24, 1925. p. 46-48. (Jan. 19.)

Dorsey, N. Ernest. A lightning stroke. p. 87-93. (Feb. 19.)

Fleming, J. A. The magnetic and electric survey of the earth: Its physical and cosmical bearings and development. p. 109-132. (March 4.)

Wetter. Berlin.

ter. Berlin. 43. Jahrgang. Januar 1926. Diesner, P. Der Geltungsbereich klimatologischer Stationen. p. 21-24.

Meissner, Otto. Bemerkenswerte Witterungsereignisse der letzten 10 Jahre (1916–1925). p. 17–21.

Peppler, Albert. Die Meteorologie an den deutschen Hochschulen. p. 1-15.

### SOLAR OBSERVATIONS

#### **SOLAR AND SKY RADIATION MEASUREMENTS DURING** FEBRUARY, 1926

By Herbert H. Kimball, Solar Radiation Investigations

For a description of instruments and exposures and an account of the method of obtaining and reducing the measurements, the reader is referred to the Review for January, 1924, 52:42, January, 1925, 53:29, and July, 1925, 53:318.

From Table 1 it is seen that solar radiation intensities averaged slightly above February normals at all three stations except for a. m. observations at Lincoln.

Table 2 shows that the total solar and sky radiation received on a horizontal surface averaged below normal for all four weeks at the three stations for which normals have been determined.

No skylight polarization measurements were obtained at Madison, as the ground was covered with snow throughout the month. Measurements made on five days at Washington give a mean of 58 per cent with a maximum of 60 per cent on the 25th. These are close to the February averages for Washington.

Table 1.—Solar radiation intensities during February, 1926 [Gram-calories per minute per square centimeter of normal surface.]

# WASHINGTON, D. C.

				8	un's z	a's zenith distance							
	8 a.m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	Noon		
Date	75th	Air mass									Local mean		
	mer. time		A.	М.			P. M.				solar time		
	e.	5.0	4.0	3.0	2.0	•1.0	2.0	3.0	4.0	5.0	e.		
Feb. 5	mm. 2. 26		cal. 0.87	cal. 1.07	cal. 1. 34	cal.	cal. 1. 33	cal. 1. 20	cal.	cal.	mm. 2.16		
11 16 17	1. 52 1. 96 2. 74	0. 64		0.92	1. 18		1. 22	0. 98			1. 45 2. 26 3. 00		
20 23 24	1. 68 3. 45 1. 96	0. 66	0.82	0. 95	1.07		1. 38	1. 17	0. 92	0. 80	2.26		
Means	3.00	0. 71	0.84	1. 00	1. 17		1.31		(0. 92)				
Departures	·	±0.00	+0.03	+0.02	+0.01		+0.12	+0.15	+0.08	+0.04			

TABLE 1.—Solar radiation intensities during February, 1926—Con.

#### MADISON, WIS.

		Sun's zenith distance									
Date	8 a.m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	Noor
	75th	Air mass									Local mean
	nier. time		Α.	М.				P. M.			solar time
	e.	5.0	4.0	3.0	2.0	*1.0	2.0	3.0	4.0	5.0	е.
Feb. 15	mm, 1, 32	cal. 1.04		cal, 1. 29	cal.	cal. 1.60	cal.	cal.	cal.	cal.	mm.
19 23 26	1. 19 1. 96 2. 26 1, 32		1. 11 0. 78		1. 46 1. 38 1. 44						1. 5: 3. 00 2. 10 1. 78
Means Departures		0. 94	1	1. 28	1. 43		1				

LINCOLN, NEBR.

Feb. 6	4, 17			1, 25	1.41						5. 16
7	3. 99			1. 20			1, 41	1. 30			6. 02
9	3.81			1, 34		1.62					3. 99
12	4. 57										6. 27
15	1.96		0.93	1. 10	1. 22		1.39				2. 74
22	3. 15						1.28	1.14	1.00	0.84	3.81
23	3.81			1.09	1.30			<b>-</b>			3.81
27	3.63				1.23						4. 37
28	3. 99		- <b>-</b>	1, 14	1. 30						4. 95
Means	ļ	0.90	1. 05	1. 18	1. 30	1. 58	1. 37	1. 22	1.09	0. 95	
Departures		<b>—0.05</b>	+0. 01	-0.02	-0.08		+0.02	+0.05	+0.06	+0.04	

<sup>\*</sup>Extrapolated.

Table 2.—Solar and sky radiation received on a horizontal surface [Gram-calories per square centimeter of horizontal surface]

Weeks of the		Average	e daily ra	adiation		Average daly departu from niormal			
Week beginning-	Wash-	Madi-	Lin-	Chi-	New	Wash-	Madi-	Lin-	
	ington	son	coln	cago	York	ington	son	coin	
1926 January 29 February 5 12 19	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	
	120	104	145	44	66	-78	-96	-100	
	159	163	251	48	132	-57	-54	-16	
	218	176	263	54	104	-16	-63	-31	
	241	196	266	83	108	-17	-63	-58	
Deficiency since firs	st of year	on Feb.	25			-1, 190	-2, 212	-2, 191	

# 551.506 (261.1) WEATHER OF NORTH AMERICA AND ADJACENT OCEANS

## NORTH ATLANTIC OCEAN

By F. A. Young

February was another unusually stormy month over the North Atlantic. The percentage of days with gales was considerably above the normal over the middle and western sections of the steamer lanes, where they were reported on from 7 to 9 days, the storm area on a number of days extending as far south as the 35th parallel. The conditions over the eastern section of the northern steamer lanes were moderate as compared with the two previous months, although that region was by no means free from heavy weather. A number of reports were received from vessels indicating winds of force 11 and 12, although they were not quite as common as in January, and the number of marine casualties was also less.

Table 1.—Averages, departures, and extremes of atmospheric pressures at sea level, 8 a. m. (75th meridian), North Atlantic Ocean, February, 1926

Stations	Average pressure	Depar- ture <sup>1</sup>	Highest	Date	Lowest	Date
St. Johns, Newfoundland Nantucket Hatteras Key West New Orleans Swan Island Turks Island Bermuda Horta, Azores Lerwick, Shetland Islands Valencia, Ireland	Inches 29, 47 29, 79 29, 97 30, 09 30, 08 30, 06 30, 04 29, 71 29, 66 29, 87	Inch -0.35 -0.27 -0.16 +0.01 -0.02 -0.05 -0.09 -0.08 -0.09 -0.01 -0.24 -0.13	Inches 30. 10 30. 28 30. 46 30. 30 30. 36 30. 36 30. 46 30. 36 30. 46 30. 56 30. 58 30. 58 30. 58	15th	Inches 28, 64 29, 16 29, 54 29, 84 29, 86 29, 86 29, 94 29, 50 29, 42 29, 62 28, 97 20, 27	12th.  2 4th. 10th. 10th. 2 14th. 2 10th. 11th. 11th. 11th. 4th. 15t. 3d.

<sup>&</sup>lt;sup>1</sup> From normals shown on H. O. Pilot Chart, based on observations at Greenwich mean noon, or 7 a. m., 75th meridian.

<sup>3</sup> And on other dates.

Fog was unusually prevalent off the New England coast and in the Gulf of Mexico, while the number of days on which it occurred was about normal in the vicinity of the British Isles, and somewhat below over the Grand Banks and steamer lanes.

Low pressure prevailed at practically all of the stations during the greater part of the month, although at Horta there were two short periods in the second and third decades, respectively, when the barometric readings were considerably above normal, indicating that the North Atlantic High was well developed.

Charts VIII to XIII show the conditions from the 1st to 6th, inclusive. During the first part of this period the same disturbance shown on Charts X and XI for January covered the eastern section of the steamer lanes. The Low that was central near St. Johns, Newfoundland, on the 6th, as shown on Chart XIII, moved steadily eastward, and on the 7th the center was near 45° N., 40° W., and moderate to strong gales prevailed over the region between the 35th and 50th parallels and the 35th and 50th meridians. The Low that was off the coast of Ireland on the 6th moved but little, decreasing in intensity, as on the 7th moderate weather prevailed over the eastern section of the steamer lanes, although on that date and the 8th vessels between the Azores and the Spanish coast

reported moderate southwesterly gales.
On the 8th there was a slight depression off Hatteras that afterward developed into a severe disturbance. On that date there was also a Low central near 50° N., 40° W., and strong gales swept the steamer lanes between the 30th and 50th meridians. The Hatters disturbance moved northeastward along the coast, and on the 10th was near Nantucket. On the 11th it was near Halifax, while on both of these dates southwesterly to north-